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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,394	08/20/2004	Russell C. Smith	60,680-854	5924

7590 01/30/2007
Dykema Gossett
Suite 300
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Bloomfield Hills, MI 48304-2820

EXAMINER

ILAN, RUTH

ART UNIT	PAPER NUMBER
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3616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/505,394

Applicant(s)

SMITH, RUSSELL C.

Examiner

Ruth Ilan

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/20/04</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no description of the way in which the strain measured is used to control the various components claimed. How does frame strain relate to throttle control, brake control, and shock absorber control? There is no evidence of reduction to practice that would indicate that the applicant had the claimed invention in his possession. The specification is very cursory.

3. Claims 1-16 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It would require undue experimentation to determine the manner in which the strain on the frame could be used in combination with the other signals to control the various components.

Claim Rejections - 35 USC § 102

Art Unit: 3616

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 11-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Koivisto (US 5,366,033) Koivisto teaches a control system for a vehicle that includes a plurality of sensor assemblies (1a, 1b, 2, 3, 3a, etc) that generate signals indicative of strain on a vehicle frame (7, 14) and an electronic control unit (20) that controls the operation of a component (indicator 21) responsive to the signals. The assemblies are proximate different wheels (see Figure 2) and on a cross member (14) that is between the longitudinal frames. Regarding claim 14, an embodiment that includes two strain sensors in an assembly is disclosed (see for instance Figure 3b.)

6. Claims 1, 3-5, 11, 12, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Lindell et al. (US 2003/0160428 A1.) Lindell et al. teaches a control system for a vehicle including first and second sensor assemblies (32) mounted to a frame (44) that measures strain (see paragraph [0006], line 2) and an ECU for controlling operation of a component responsive to the strain signals (see 22, paragraphs [0013-0014] and paragraph [0018].) Also included is a steering angle

Art Unit: 3616

sensor (24), an accelerometer (26), and a vehicle speed sensor (28.) One component that is controlled includes an indicator (90).

7. Claims 1, 4, 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Knox et al. (US 2003/0033885) who teaches a control system for a vehicle including first and second sensor assemblies (324, 326, see Figure 4) mounted to a frame (327) that measures strain (see throughout) and an ECU (342) for controlling operation of a component responsive to the strain signals (see, paragraphs [0097]) Also included, an accelerometer (210.), and a vehicle speed sensor (28.) Safety components are controlled. The sensor assembly includes a metal substrate (24.)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-11, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed (US 6,464,080 B2) in view of Knox et al. (US 2003/0033885.) Breed teaches a control system for a vehicle including the claimed various sensors (see Figure 4, col. 18, lines 54-65, and col. 10, lines 40-col. 11, line 67) and control of the various claimed components. Breed includes a collision sensor (1.) Breed does not specifically indicate that the collision sensor is first strain sensor that is mounted on the frame. Knox et al. is discussed above, and teaches such a sensor, and that such a sensor is useful because it has superior resistance to external effects (see abstract.) It

Art Unit: 3616

would have been obvious to one having ordinary skill in the art at the time of the invention to include such a sensor as taught by Knox, in order to have a robust collision detection sensor.

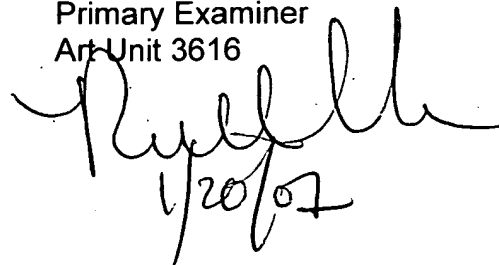
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 571-272-6673.

The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ruth Ilan
Primary Examiner
Art Unit 3616



1/20/07

RI
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